

ABSTRACT

What is disclosed herein deals with low to medium pressure,
high temperature, all ceramic, air-to-air, indirect heat
5 exchangers, novel ball joints, high load-bearing ceramic tube
sheets, and tube seal extenders for ceramic tubes that are useful
in such heat exchangers. Also disclosed are new and novel systems
used in new and novel industrial processes such as chemical
processing, sludge destruction and the production of particulates
10 such as, for example, carbon black. Systems utilizing several heat
exchangers are also disclosed.